

**Hazard detection Unit**  
 - if branch stall 3 cycles  
 - if load use stall 1 cycle

**Stack to memory Chip**  
 Enable  
 if stackOP:  
 1  
 else:  
 if stack not finished:  
 0  
 else: 1

**Priority Circuit**  
 if (rs + imm) then  
 1st cycle: nop  
 2nd cycle: old Instruction  
 and  
 else  
 1st cycle: INS  
 end

**Exception**  
 if exception lose 3 cycles

